

## Assessing the Influence of Social Networking Material on Adolescents' Sexual Behavior in Kampala

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### ABSTRACT

**Background:** Social media has been used to promote risky sexual behavior in form of unsolicited photos, videos and text from peers and strangers that is not regulated by parents or guardians. Therefore, it's important to investigate the influence of social networking material on adolescents' sexual behavior in Ugandan in order to close the knowledge gap. Adolescents in Uganda may be at risk of indulging in risky sexual behavior if usage of social networking sites remains unrestricted.

**Methods:** A cross sectional study was conducted among 280 randomly selected adolescents in Kampala between August and October 2016.

**Results:** Majority (68.9%) of the respondents thought that messages, photos, videos with sexual content shared/posted on social networking sites, changed their sexual behavior. Variables that were found to significantly explain the effect of exposure of social network content on adolescent sexual behavior, among adolescents included: Gender (male) (OR 2.646, 95% CI 1.088-6.434, use of social networking sites during holidays (OR 2.581, 95% CI .836-7.965) and social sites being used for leisure activities (OR 4.516, 95% CI 1.232-16.548).

**Conclusion:** Parents may need to restrict access and use sexual content especially pictures and videos available on social networking site among the adolescents.

**Key words:** Adolescent, social networking sites, change, sexual behavior

### Introduction

In Uganda, sexual risky behavior among adolescents is one of the key public health concerns, attributing to 24% of the teenage pregnancies (UDHS, 2011). The World Health Organization attributes sexual risky behavior among teenagers, as the leading cause of Uganda's abortion rates, which are higher than 18% in East African Sub region and ranks at 13% in the world. In addition, about 1,500 girls die from complications resulting from unsafe abortions due to unintended pregnancies in Uganda annually. During adolescence, a child experiences a sense of self- discovery due to the changes in his/ her body that necessitates the need to create a false identity. This aspiration has been made easy through the use of social networking sites/social media, which enables them to manipulate their online personification to fit the stereotypes (Effiom, 2013). Furthermore, social media has been used to promote risky sexual behavior in form of unsolicited photos, videos and texts from peers and strangers that are not regulated by parents or guardians a key driver of sexual risky behavior among adolescents (Bantebya et al., 2014).

### Methods and materials

#### Setting and study population

A descriptive cross sectional design was used to collect data using a structured questionnaire. This study was conducted in two secondary school settings among adolescents aged 15-19 years with a sample of 280 students

### Results

Of the 280 adolescent interviewed; 193(68.9%) reported that messages, photos, videos with sexual content shared/posted on social networking sites had caused a change their sexual behavior compared to 87(31.1%) who did not.

#### Demographic characteristics

Table 1 reveals that 116(60.1%) of the female compared 77(39.9%) males' change in sexual behavior had been influenced by social networking site. Gender was found to be influenced by unsolicited access to social networking site  $X^2$  12.503;  $p < .05$ ). With regards to age it was established that 42(21.8%) of adolescents aged 15-17 years compared to those above 18 years 63(32.6%) reported to have experienced change in sexual behavior. Thus age was found to significantly influence change in adolescent sexual behavior ( $X^2$  6.7665;  $p < .05$ ). The study findings show 72(37.3%) of the respondents were day scholars compared to 121(62.7%) who were not. Thus type of school was found to significantly influence change in adolescent sexual behavior ( $X^2$  7.591;  $p < .05$ ).

### **The influence of using Social Networking Site**

Table 2, 115(59.6%) compared to 63(72.4%) of the adolescent twitters reported to have experienced change in their adolescent sexual behavior. The study established that use of twitter social networking application had a strong significant association with change in adolescent sexual behavior ( $X^2$  4.261;  $p < .05$ ). 192(69.8%) vs. 83(30.2%) of the adolescent who accessed social networking sites for home reported a change on their sexual behavior ( $X^2$  5.691  $p < .05$ ). 41(82.0%) vs. 9(18.0%) of the adolescents who accessed social networking sites daily reported a change in their sexual behavior. Thus, daily usage of social networking sites was found to have a strong significant association with change in adolescent sexual behavior ( $X^2$  4.856  $p < .05$ ). 100(60.6%) compared to 65(39.4%) who used social networking sites during the holidays reported a change in their sexual behavior (among adolescents ( $X^2$  12.992,  $p < .05$ ).

### **The influence of video content shared on social networking sites**

When the effects of video contents shared on social networking sites were analyzed (table 3) it was revealed that; 49(81.7%) of the adolescent who had shared pornographic video experienced a change in sexual behavior compared to only 11(18.3%) who did not. 127(87.0%) of the adolescent that had been aroused by watching pornographic videos. Thus watching pornographic videos was found to significantly influence adolescent sexual behavior ( $X^2$  46.449,  $p < .05$ ). 109(79.6%) of the adolescents who had watched pornographic materials had the urge to carry out what they had seen ( $X^2$  14.162,  $p < .05$ ). 28(96.6%) of the adolescents reported that they started masturbating as a result of watching pornographic videos. The study findings established that after watching a pornographic video, some adolescents started looking for means of meeting a partner to have sex, when they failed, they resorted to masturbating ( $X^2$  11.526,  $p < .05$ ). However some of the adolescents that 92(82.9%) thought it was normal to watch pornographic videos. Finally the adolescents who thought watching pornographic videos was normal/casual was found to have changed their sexual behavior ( $X^2$  16.721  $p < .05$ ).

### **The influence of peers and advertising sex related products on social networking sites**

138(75.0%) of the adolescents who had joined social media because their friends had already joined and did not want to be left out reported to have had change in sexual behavior while 46(25.0%) disagreed ( $X^2$  9.237,  $p < .05$ ). 100 of 131(76.3%) of the adolescent agreed to the fact that they commented on received/posted messages/pictures/photos because their friends had done so while 31(23.7%) disagreed (was found to significantly influence adolescent sexual behavior ( $X^2$  6.307,  $p < .05$ ). 34(82.9%) compared to 7(17.1%) of the respondents agreed that they have ever sent a photo with fewer clothes than usual to a lover, because he/she asked for it. The sharing of semi-nude photos with peers through social media was found to significantly influence change in adolescent sexual behavior ( $X^2$  4.395,  $p < .05$ ).

Furthermore, posting a photo with less clothes than usual to a lover, was found to significantly influence change in adolescent sexual behavior ( $X^2$  4.395,  $p < .05$ ). 83(77.6%) compared to 24(22.4%) of the adolescents that shared on sexual matters reported a change in behavior. Talking of sexual issues with friends via social media was found to significantly influence change in adolescent sexual behavior with  $X^2$  6.038,  $p < .05$ ). 70(82.4%) of the adolescents who had been influenced to be sexually active reported a change in sexual behavior compared to 15(17.6%) who did not ( $X^2$  10.27  $p < .05$ ). 54(94.7%) of the adolescents that had ever been influenced by condom adverts on social media reported a change in behavior ( $X^2$  22.258,  $p < .05$ ).

### **Multivariate Analysis of the exposure to social networking sites material**

Using the Binary Logistics regression model the effects of exposure to social networking sites material on adolescent sexual behavior were: Gender (male) (OR 2.646, 95% CI 1.088-6.434), , using of social networking sites during holidays (OR 2.581, 95% CI .836-7.965) and social sites being used for leisure activities (OR 4.516, 95% CI 1.232-16.548).

### **Discussion**

#### **Demographic characteristics influencing adolescent sexual behavior**

Adolescent is a transition point from childhood to adulthood, it involves experiencing physical and emotional changes. Asrat (2014) concurs with above in his study on the assessment of sexual risk behaviors in schools were it was established that it's during adolescence that individuals begin to pick interest in exploring and experimenting sexual relations.

The study findings revealed that the sexual behavior of male students were 2.6 times more likely to change due to contents viewed on social networking sites than their female counterparts (OR 2.646, 95% CI 1.088-6.434). In a study on male Swedish high school, it was revealed that, frequent viewing of sexually explicit material could

create a more stimulating sex life among male viewers (Owen et al., 2012). When not at school, the day scholars have more liberty to access social networking sites and are able to view different kinds of illicit materials than their counterparts in boarding schools. This concurs with findings of Asrat, 2014, who revealed that, a place where an adolescent stays while studying, may have an influence on his/her adoption of risky sexual behavior.

#### **The influence of using Social Networking Sites on adolescent sexual behavior**

The study established that adolescents spent more time twitting predisposing them to engage in risky sexual behavior. In-line with this, a study conducted in U.S by Bryant et al., 2014, on assessing the impact of social media on the risky sexual behaviors of students, revealed that premature sex was associated with social media sites like Twitter and You Tube. Place of accessing social networking sites was strongly associated with change in adolescent sexual behavior. A study by Jeckoniah et al., 2015 revealed that most adolescents who accessed social networking sites from home obtained internet bundles from their parents who were not suspecting of the type of content accessed on social networking sites.

The study findings showed that daily usage of social networking sites like U-tube the enticed adolescents with sex contents increased the risk of sexual behavior. A study conducted by the Kaiser Family Foundation, affirmed that 11-to-18 year olds spend on average 27 minutes daily visiting social network sites, which is more than a quarter of their computer use per day (Rideout et al., 2010). Daily use of social media has rising concerns, for example: adolescents are inexperienced and have limited capacity for self-regulation; they may not understand fully the repercussions of internet use to learn of sex, they could get addicted and be at risk as they experiment with social media (O'Keeffe et al., 2011).

#### **The influence of video content shared on social media on adolescent sexual behavior**

Adolescents' urge to learn about sexuality increases exposure to sexually illicit material. This is consistent with the finding in a study by Peter and Valkenburg (2008b) that showed a relationship between adolescents' exposure to sexually illicit materials and positive attitudes towards engaging in uncommitted sexual exploration. A study by Houck et al., (2013), confirmed that, the sexual text messaging behavior among students, whether with or without pictures was associated with greater likelihood to engage in sexual activities. It was established that receiving a pornographic video on social media from a friend whom they had never met offline was found to be significantly associated with adolescent sexual. A study in Sweden while examining the sex lives and pornography consumption of high school students revealed that having sexual intercourse with a friend was associated with frequent exposure to sexually illicit material (Owen et al., 2012). Therefore, exposure to sexually explicit material was found to increase the likelihood of adolescents accepting and engaging in sexually permissive behaviors (Braun-Courville and Rojas (2009).

This is in line with a study in Taiwan of 2,001 students that revealed that a relationship between adolescents' exposure to sexually illicit materials and their positive attitudes toward premarital sexual relations (Lo and Wei's, 2005). Finally, watching pornographic videos and thinking it was normal/casual is consistent with a study in US, by Braun-Courville and Rojas (2009) that found out that adolescents that were more frequently exposed to sexually explicit material, were more likely to accept the notion of casual sex.

#### **The influence of peers and advertising in social networking sites**

The findings revealed that among those who agreed that they joined social media because of their peers and they did not want to be left out. Peers have significant influences on their friends' behavior especially with regard to sex (Cherie et al., 2012). Adolescents usually do not want to be left out and this influences change in their sexual behavior. This is because Adolescents use social media to monitor the social status of their friends (Markwei et al., 2016). Therefore they end up copying characters of their friends while online thus influencing change in their sexual behavior. In 2009, Brown and L'Engle's, revealed that early exposure to sexually illicit material increases the likelihood for adolescents to engage in oral sex and sexual intercourse earlier than their non-exposed peers. Social media users, especially girls select and post pictures in which they look attractive (Siibak, 2009). Talking of sexual issues with friends via social media among adolescents is perceived as being involved in sexual relationships are more likely to report risky sex behavior (Cherie et al., 2012).

#### **Strengths and limitations**

This study utilized primary data therefore results were not affected by issues related to missing data. Findings however, may not be generalized to a rural secondary school population. Another setback in this study was the exposure and outcome was self reported which could have underestimated the influence of social media material on sexual behavior.

#### **Conclusion**

Adolescents access social networking site by mobile phones at home with minimal or no parental restrictions

thus increasing chances for exposures to sexually illicit materials. It was also evident that social networking sites' materials (messages, videos, pictures, adverts that are sexually suggestive and peer influence) played a major role in changing the sexual behavior of Ugandan adolescents.

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Appendix: Tables

**Table 1: Demographic factors associated with change in Adolescent Sexual Behavior**

| Variables          | Influenced change in Adolescent Sexual Behavior |            | Chi-square | P-Value    |
|--------------------|---|------------|------------|------------|
| <b>Gender</b>      | <b>No</b>                                       | <b>Yes</b> |            |            |
| Male               | 16(18.4)  | 77(39.9)   | 12.503     | .000       |
| Female             | 71(81.9)  | 116(60.1)  |            |            |
| <b>Total</b>       | <b>87</b>                                       | <b>193</b> |            |            |
| <b>Age-group</b>   |   |            |            |            |
| 15-17 years        | 65(74.7)  | 113(58.5)  | 6.765      | .009       |
| Above 18 years     | 22(25.3)  | 80(41.5)   |            |            |
| <b>Total</b>       | <b>87</b>                                       | <b>193</b> |            |            |
| <b>Religion</b>    |   |            |            |            |
| Catholic           | 15(17.2)  | 39(20.2)   | .742       | .863       |
| Protestant         | 39(44.8)  | 90(46.6)   |            |            |
| Muslim             | 29(33.3)  | 57(29.5)   |            |            |
| Others             | 4(4.6)  | 7(3.6)     |            |            |
| <b>Total</b>       | <b>87</b>                                       | <b>193</b> |            |            |
| <b>School type</b> |   |            |            |            |
| Day                | 18(20.7)  | 72(37.3)   | 4.856      | .028       |
| Boarding           | 69(79.3)  | 121(62.7)  |            |            |
| <b>Total</b>       | <b>87</b>                                       | <b>193</b> |            | <b>280</b> |

Level of significance,\*  $p$ -value < 0.05

**Table 2: The influence of use of Social Networking Sites among adolescents sexual behavior**

| Variables  | Influenced change in Adolescent Sexual Behavior |            | Chi-square | P-Value    |
|--|---|------------|------------|------------|
| <b>Social Networking sites known</b>               | <b>No</b>                                       | <b>Yes</b> |            |            |
| WhatsApp   | 81(93.1)  | 182(94.3)  | .151       | .698       |
| Face book  | 84(96.6)  | 187(96.9)  | .022       | .882       |
| Twitter  | 63(72.4)  | 115(59.6)  | 4.261      | .039*      |
| Instagram  | 49(56.3)  | 122(63.2)  | 1.198      | .274       |
| Others   | 59(67.8)  | 113(58.5)  | 2.173      | .140       |
| <b>How many sites are used actively</b>            |   |            |            |            |
| Only one site                                      | 14(16.1)  | 42(21.8)   | 1.676      | .433       |
| Two sites  | 27(31.0)  | 63(32.6)   |            |            |
| More than two sites                                | 46(52.9)  | 88(45.6)   |            |            |
| <b>Total</b>                                       | <b>87</b>                                       | <b>193</b> |            |            |
| <b>Place of accessing social networking sites</b>  |   |            |            |            |
| At home  | 83(30.2)  | 192(69.8)  | 5.691      | .017*      |
| School computer lab                                | 23(32.4)  | 48(67.6)   | .078       | .780       |
| Public café  | 9(25.0)   | 27(75.0)   | .711       | .399       |
| <b>Frequency of use-social networking sites</b>    |   |            |            |            |
| Daily  | 9(18.0)   | 41(82.0)   | 4.856      | .028*      |
| Once a week  | 10(24.4)  | 31(75.6)   | 1.001      | .317       |
| One month  | 6(19.4)   | 25(80.6)   | 2.234      | .135       |
| Every day during holidays                          | 65(39.4)  | 100(60.6)  | 12.992     | .000*      |
| <b>Platforms to access social networking sites</b> |   |            |            |            |
| Mobile phone                                       | 82(30.3)  | 189(69.7)  | 2.603      | .107       |
| Laptop   | 41(31.5)  | 89(68.5)   | .025       | .875       |
| Desktop computers                                  | 20(29.4)  | 48(70.6)   | .116       | .734       |
| Ipad   | 25(29.4)  | 60(70.6)   | .157       | .692       |
| <b>Total</b>                                       | <b>87</b>                                       | <b>193</b> |            | <b>280</b> |

Level of significance,\*  $p$ -value < 0.05



**Table 3: The influence of sex video content shared on social networking sites on adolescent sexual behavior.**

| Variable   | Influenced change in Adolescent Sexual Behavior |           | Chi-square | p-value |
|--|---|-----------|------------|---------|
|  | No  | Yes       |            |         |
| 1. I have ever been asked for an intimate relationship from a friend after sharing their pornographic videos.          | 11(18.3)  | 49(81.7)  | 5.785      | .016*   |
| 2. When I watch a pornographic video, I feel sexually aroused.   | 19(13.0)  | 127(87.0) | 46.449     | .000*   |
| 3. After watching a pornographic video, I start having thoughts of myself doing the same                               | 28(20.4)  | 109(79.6) | 14.162     | .000*   |
| 4. After watching a pornographic video, I look for means of meeting a partner and have sex, when I fail, I masturbate. | 1(3.4)  | 28(96.6)  | 11.526     | .001*   |
| 5. Am used to watching pornographic videos, that I take all actions in them to be normal/casual.                       | 19(17.1)  | 92(82.9)  | 16.721     | .000    |

*Level of significance,\* p-value < 0.05*

**Table 4: The effects of peer influence and advertising in social networking sites on adolescent sexual behavior**

| STATEMENT   | Influenced Adolescent Sexual behavior |           | Chi-square | p-value |
|---|---------------------------------------|-----------|------------|---------|
|   | No                                    | Yes       |            |         |
| 1. I actually joined social media, because my friends had already joined and I did not want to be left out.       | 46(25.0)                              | 138(75.0) | 9.237      | .002*   |
| 2. Most of the time, I comment on received/posted messages/ pictures/ photos because my friends have done so.     | 31(23.7)                              | 100(76.3) | 6.307      | .012*   |
| 3. I got a lover because all my friends on social media have them.  | 5(17.2)                               | 24(82.8)  | 2.889      | .089    |
| 4. I have ever sent a photo with less clothes than usual to my lover, because he/she asked for it.                | 7(17.1)                               | 34(82.9)  | 4.395      | .036*   |
| 5. I always talk about issues concerning sex with my friends via social media.                                    | 24(22.4)                              | 83(77.6)  | 6.038      | .014*   |
| 6. I have ever been influenced to be sexually active by my friends on social media.                               | 15(17.6)                              | 70(82.4)  | 10.270     | .001*   |
| 7. I have ever been influenced by adverts of sexual items like condoms on social media to have sex                | 3(5.3)                                | 54(94.7)  | 22.258     | .000*   |
| 8. My friends think, it's normal to date a stranger on social media, for as long as, his/her pictures looks nice. | 68(30.5)                              | 155(69.5) | .171       | .679    |

*Level of significance,\* p-value < 0.05*

**Table 5: Results of Multivariate Logistic Regression Analysis**

| Variable   | OR    | 95% C.I. for OR |        |
|--|-------|-----------------|--------|
|  |       | Lower           | Upper  |
| <b>Gender(Male)</b>                              | 2.646 | 1.088           | 6.434  |
| <b>Social Networking sites</b>                   |       |                 |        |
| a_whatsup  | 1.845 | .605            | 5.629  |
| b_facebook                                       | 1.381 | .313            | 6.099  |
| d_instagram                                      | 1.785 | .984            | 3.238  |
| Other sites                                      | Ref.  |                 |        |
| <b>Number of actively used social sites</b>      |       |                 |        |
| Only one site                                    | 1.979 | .924            | 4.235  |
| Two sites  | 1.236 | .691            | 2.213  |
| More than two sites                              | Ref.  |                 |        |
| <b>When social networking sites are accessed</b> |       |                 |        |
| During holidays                                  | 2.581 | .836            | 7.965  |
| <b>Others</b>                                    | Ref   |                 |        |
| <b>Leisure with friends when alone</b>           | 4.516 | 1.232           | 16.548 |
| <b>Others</b>                                    | Ref.  |                 |        |